



**Idaho Department of Lands
Bureau of Fire Management**

FIRE MANAGEMENT HANDBOOK

Incident Assignments/Fitness Requirements

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Location:	<u>CDA Staff Office</u>

1. PURPOSE

One of the primary responsibilities of the Idaho Department of Lands is to protect forest and range lands from fire. This activity takes precedence over all other duties. All department permanent and temporary employees will be expected to achieve and maintain the necessary training and physical fitness levels for the wildland fire position they fill. The Work Capacity Test has been developed for incident qualification positions based on expected physical activity for that position.

2. APPLICABILITY

Applies to all IDL employees.

3. ASSOCIATED POLICIES

Employee Fire Development, FMH 812

IDL Implementation of the Wildland Fire Qualification System Guide, 310-1

4. EXCEPTION AUTHORIZATION

Exceptions to this policy may be granted by the Chief, Bureau of Fire Management or Executive Staff.

5. DEFINITIONS

6. POLICY

- A. It is required that all employees become qualified and participate in fire suppression activities.
- B. Assignment to fires or other types of incidents will be based on individual qualifications as outlined in Employee Fire Development, FMH 812. Qualifications are determined by the individual's training, experience, and physical fitness levels for a specific fire assignment.
- C. Management reserves the right to assign employees to fire positions which best meet the needs of the agency and the abilities of the employee.
- D. New hires will be informed, before assuming their duties, that fire suppression will be part of their job responsibilities.
- E. Return to work after fire assignment:
 - 1. Return to work is handled on a case-by-case basis with particular attention to the health and safety of individual employees. Because there is typically work to be done, employees returning from a fire



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assignment should return to their regular duties at the first opportunity with the following considerations: Number of days on assignment, type of position on assignment, shift worked (day or night), travel time from assignment, time of day the employee returned to duty station, current or expected fire activity, nature of regular job and work to be assigned in regular job, or number of days until next regular day off.

IDL employees returning from a 14 day assignment will take a minimum of two days (48 hours) time off prior to any fire reassignment. **This includes Idaho Department of Lands initial attack activities.** This time is not compensable except when the week does not total 40 hours. If 40 hours is not met, vacation leave can be used to equal (but not exceed) 40 hours.

2. Casual hires are not entitled to administrative leave upon release from the incident.

7. PROCEDURES

A. Physical fitness

1. All Department permanent and temporary employees will be expected to achieve and maintain the necessary physical fitness level for the wildland fire positions they fill. A memo from the Area Training Representative listing **fitness test scores will be forwarded to the Bureau of Fire Management for all permanent and temporary employees no later than April 30 each year** (or as soon as possible after hire date). Fitness test scores for temporary employees will be retained by the office issuing Red Cards. These fitness levels are found in the IDL Implementation of the Wildland Fire Qualification System Guide 310-1. Refer to Employee Fire Development, FMH 812 for direction on issuing Red Cards.
2. Temporary employees (i.e., smokechasers, fire crews, helitack) with primary initial attack responsibilities may be allowed regularly scheduled physical fitness exercise periods during regular work (one hour per day). Physical fitness exercise should be structured exercise of an aerobic nature and not game playing. The Area Manager is responsible for determining what physical fitness exercise is appropriate for good physical conditioning. Regular on-the-job-duties may also serve as physical fitness exercise.
3. The level of individual incident assignment participation will depend upon agency needs, employee qualifications, available funding, and the employee's regular work assignment with the Department. For example clerical, administrative, and staff employees will not be



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- required to perform fireline activities (such as those classified in the Operations category in 310-1). They must, however, perform support functions normally classified in the Finance, Logistics, Planning and Expanded Dispatch categories. Line staff (forestry, range, fire, etc.) will be required to participate and qualify for fireline assignments. Reasonable accommodations will be made, should an employee not be able to participate in fire suppression activities due to poor health or for other reasons approved by the Director.
4. Supervisors will advise newly hired, to-be-hired, or returning temporary employees that physical fitness will be a requirement for their positions as appropriate. Such notification should include the physical fitness requirements for the positions.
 5. Fireline personnel who do not or cannot meet fitness requirements will:
 - a. Be given adequate time to improve physical conditioning (two weeks) to meet physical fitness requirements. Employees should only be used for fire activities commensurate with their physical abilities as indicated by the work capacity test levels.
 - b. If still unable to meet physical fitness requirements for a given function, the employee should be moved to a function of lower physical fitness requirements, if available.
 - c. If unable to meet any of the required physical fitness standards, the employee cannot be utilized in fire line operations.
 - d. Temporary fire control personnel who cannot meet required physical fitness standards should be terminated if no accommodations can be made to find other work for the individual. Temporary personnel can be considered for alternate positions, if available, such as lookout, dispatch, etc.
 - e. Personnel who are qualified in positions listed in 310-1 at the moderate or light level, but who do not or cannot meet physical fitness requirements, may obtain a **Medical Examination Report, Attachment 1**. **Note: This is a two-page form that includes Work Capacity Test Information for the physician. See Attachment 1-A.** The physician must certify the employee is physically able to perform wildland firefighting duties at the fitness level required of the assigned position. The cost of the physical examination is at the employee's expense.



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B. Testing

1. Tests for employees will be administered by qualified test administrators who are approved by the Bureau of Fire Management. A trained First Responder must be on site during the Work Capacity Test. Tests should be administered prior to April 30 each year.
2. Temporary employees will be administered the physical fitness test during the first week of employment by the hiring office.
3. The **PAR-Q & You Questionnaire, Attachment 2**, and **Informed Consent, Attachment 3**, will be completed by all employees.
4. Physical fitness testing will be administered as per the guidelines outlined in this document. Follow up testing should be conducted to provide individuals with an assessment for further physical conditioning to meet the requirements for their particular fire function as needed.
5. All physical fitness tests or medical records relating to an individual's medical history, or fitness ability, will be maintained in the individual's other personnel records.
6. Pack Test – Arduous

Instructions – The Pack Test is a 3-mile hike with a 45 lb. pack over level terrain. Field studies show that performance on the Pack Test is significantly related to performance of firefighting tasks, including line construction with hand tools. Studies conducted at the University of Montana Human Performance Laboratory indicate that the energy cost of the test is similar to the cost of firefighting tasks. A score of 45 minutes on the Pack Test approximates a Step Test Score of 45 (ml/kg-min). Because of its length, the Pack Test is an excellent indicator of sustained work capacity. Scores on a flat course are highly related to performance on a hilly course, and performance on the Pack Test is significantly related to muscular fitness, including measures of upper and lower body strength. The Pack Test is job related, safe, inexpensive, and easy to administer. It is a valid, reliable, and objective measure of work capacity that does not adversely impact workers on the basis of gender, ethnicity, age, height, or weight.

7. Field Test – Moderate

Instructions – The Field Test is a 2-mile hike with a 25 lb pack over level terrain. A score of 30 minutes or less is required to pass. It is a job related test of work capacity designed for those with moderately



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strenuous duties, including considerable walking over irregular ground, standing for long periods, lifting 25-50 lbs, climbing, bending, stooping squatting, twisting and reaching.

8. Walk Test – Light

Instructions – The Walk Test is a 1-mile test with no load. A score of 16 minutes or less is required to pass. The walk test is designed to determine the ability to carry out light duties, which typically include office work with occasional field activity characterized by light exertion.

9. Course

The course must be essentially level and have a firm, relatively smooth walking surface. Course length (1, 2, or 3 miles) must be accurate (double-check measurements). Use a measuring wheel or calibrated bicycle computer. Vehicle odometers are not sufficiently accurate.

Loop or out-and-back courses are preferable. Avoid one-way courses where unfavorable conditions (wind, grade) are not offset. A moderate grade (2-3 percent) is acceptable if the course starts and finishes at the same place. Have lap counters available for multi-loop courses. Use course monitors when needed.

Candidates must be informed of the course layout (use a map or sketch of the course). Use distance markers (e.g., at .5, 1 or 1.5 miles) to aid candidates. Use hazard and traffic markers as needed.

10. Equipment

Packs: The 5-gallon backpack pump water bag used in test development is recommended: The number required will depend on the number of candidates to be tested simultaneously. If other packs are used the test administrator must ensure the correct weight (25 or 45 lbs).

Pack Liners: Have at least one extra liner for each pack.

Canteens: Use up to two in pack pocket to obtain proper weight (25 or 45 +/- ½ lbs).

Safety Vests/Route Markers: As needed.

Distance Markers: Use mile and mid-point markers so candidates can maintain proper pace.



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Stop Watches: Utilize two watchers to provide backup timing.

Vehicle: Bicycle or other vehicle to monitor candidates on the course.

Radios: As needed for monitoring and safety.

Scale: An accurate hanging style spring scale is recommended for weighing packs.

Forms: Complete **PAR-Q & You Questionnaire, Attachment 2**, and **Informed Consent, Attachment 3**. The **Data Collection, Attachment 4**, form should include: site, date, conditions, test administrator, and columns for name, gender, age, height, weight, Pack Test and other scores (step test, 1.5 mile run, etc.).

11. Test administration

One person can administer the test when:

- The administrator is a trained First Responder (American Red Cross) or equivalent.
- The timer can monitor the course.
- The safety/medical evacuation plan can be executed.
- Five or fewer people are being tested at one time.
- Candidate safety and compliance with test requirements can be assured.

For larger groups or when course monitoring is difficult, a 2 to 3-person team should be used.

12. Testing tips

- Fill packs the night before to check for leaks (use plumber's Teflon tape to stop leaks in threaded fitting).
- Weigh bags before test. Check weight after the test if necessary.
Note: Bags are used without trombone pumps.
- Group or staggered starts can be used. Many candidates will benefit from the support provided by a group start.



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13. Environment

Administer the test in moderate environmental conditions; do not test **new recruits** when the temperature is high or when the temperature and humidity combine to create high-heat stress conditions. See **Heat Stress Chart, Attachment 5**. If necessary, test early in the day to avoid high temperature and humidity conditions; avoid high winds that may affect performance.

Hydration: If the weather is hot, encourage candidates to drink fluids prior to the test, and provide fluid replacement mid way in the course. Candidates may carry a water bottle, but the extra weight will not be counted as part of the pack weight.

Altitude: Use the chart below to adjust for tests administered at elevations above 4,000 feet:

Altitude Corrections for Work Capacity Tests*

Altitude	Pack Test	Field Test	Walk Test
8-9,000 ft	90 sec	60 sec	30 sec
7-8,000	75	50	25
6-7,000	60	40	20
5-6,000	45	30	15
4-5,000	30	20	10

* Add correction to required test time: e.g., Pack Test at 6-7,000 ft, add 60 seconds to test standard (45 min) for an altitude adjusted standard of 46 min.

The altitude adjustment assumes that the candidate has had an opportunity to acclimate to the altitude of the test site. If a candidate does not meet the required standard, even with the adjustment, he or she should be encouraged to train at the altitude and retake the test.

14. Instructions for candidates

In advance of the test, distribute confidential PAR-Q & You Questionnaire so candidates can decide if they should seek medical advice before taking the test. Have candidates read and sign an Informed Consent form.



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Clothing: Candidates may select the clothing worn during the test. Shorts and T-shirts are acceptable. Footwear that provides ankle height support, such as hiking boots or ankle height sport shoes, is **required** for the Pack and Field tests, and recommended for the walk test.

Safety: Brief candidates on the test, the course, safety considerations, and accommodations. Tell candidates to terminate the test if they experience major physical problems or discomfort, or feel the need to terminate for any reason.

Place: Demonstrate to candidates how they should hike (power walk) the course as fast as possible without jogging. The heel of one foot must make contact before the opposite toe leaves the ground. Jogging or running will invalidate the test and require a retest.

Accommodations: Candidates may use gloves or other padding to make the pack more comfortable. A walking staff, provided by the candidate, may be used during the test.

15. Essentials of good testing

- a. An accurately measured flat course with good surface.
- b. Proper weight packs. Use the specified water bags and verify pack weight with a calibrated scale. If alternative packs are used, encourage candidates to adjust them properly.
- c. Duplicate and accurate timing. Give candidates split times along the course (e.g., at one mile or the midpoint – 1.5 mile for the Pack Test).
- d. Candidates should be rested and well informed about the course and the need to maintain a fast pace.
- e. Favorable environmental conditions. Avoid adverse conditions.
- f. Complete the PAR-Q & You Questionnaire and sign an Informed Consent form.

16. Safety

A locally developed safety/medical evacuation plan must be prepared for the course.



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Test administrator(s) must be familiar with the safety plan.

A trained and qualified First Responder (American Red Cross or equivalent) who knows the symptoms of physical distress and appropriate first aid procedures must be on the site during the test.

Avoid use of roads and intersections where traffic is a problem or concern. When using roads, use traffic control devices and traffic controllers in high visibility vests as needed.

Encourage candidates to stretch and warm up prior to the test.

Do not test tired or injured individuals, or test during conditions that could compromise health or safety.

Monitor candidates to identify those having difficulties and encourage them to terminate the test if necessary.

Encourage fluid intake and replacement and provide fluids en route when heart-stress conditions (temperature/humidity) exist.

At the midpoint, terminate those who are substantially behind the required pace (22.5 minutes of 1.5 miles) and/or are having difficulty maintaining the pace. Candidates cannot jog or run to make up time.

Encourage a cool down with an easy walk after the test. Monitor the recovery of candidates who appear exhausted or distressed.

Recommend several weeks of training before retaking the test.

17. Training for the Pack Test

Begin at least four to six weeks before you report for duty. Train by hiking or power walking, using the ankle height footwear you will use in the test.

Hike a 3-mile flat course without the pack. When you can cover the course in less than 45 minutes:

- a. Add a pack with about 25 lb to your training hikes.
- b. Increase the pack weight until you can hike 3 miles in 45 minutes with a 45 lb pack. Also:

1. Hike hills (with pack) to build leg strength and endurance.



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2. Jog the flat course (without pack) to build aerobic fitness.
3. Hike/jog over distance for stamina.
4. Engage in cross training (mountain biking, weight lifting).

Finally, do job specific tasks and training to become work hardened for the coming season. Wear work boots on extended hikes. Work with hand tools to prepare trunk and upper body muscles for prolonged work. Work hardening ensures that the hands, feet, muscles, tendons and ligaments used on the job are tough and ready to go.